

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P158726

Luminaire Tested: **VST-F10-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158726
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F10-LED-E-U-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (70) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24573.1 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

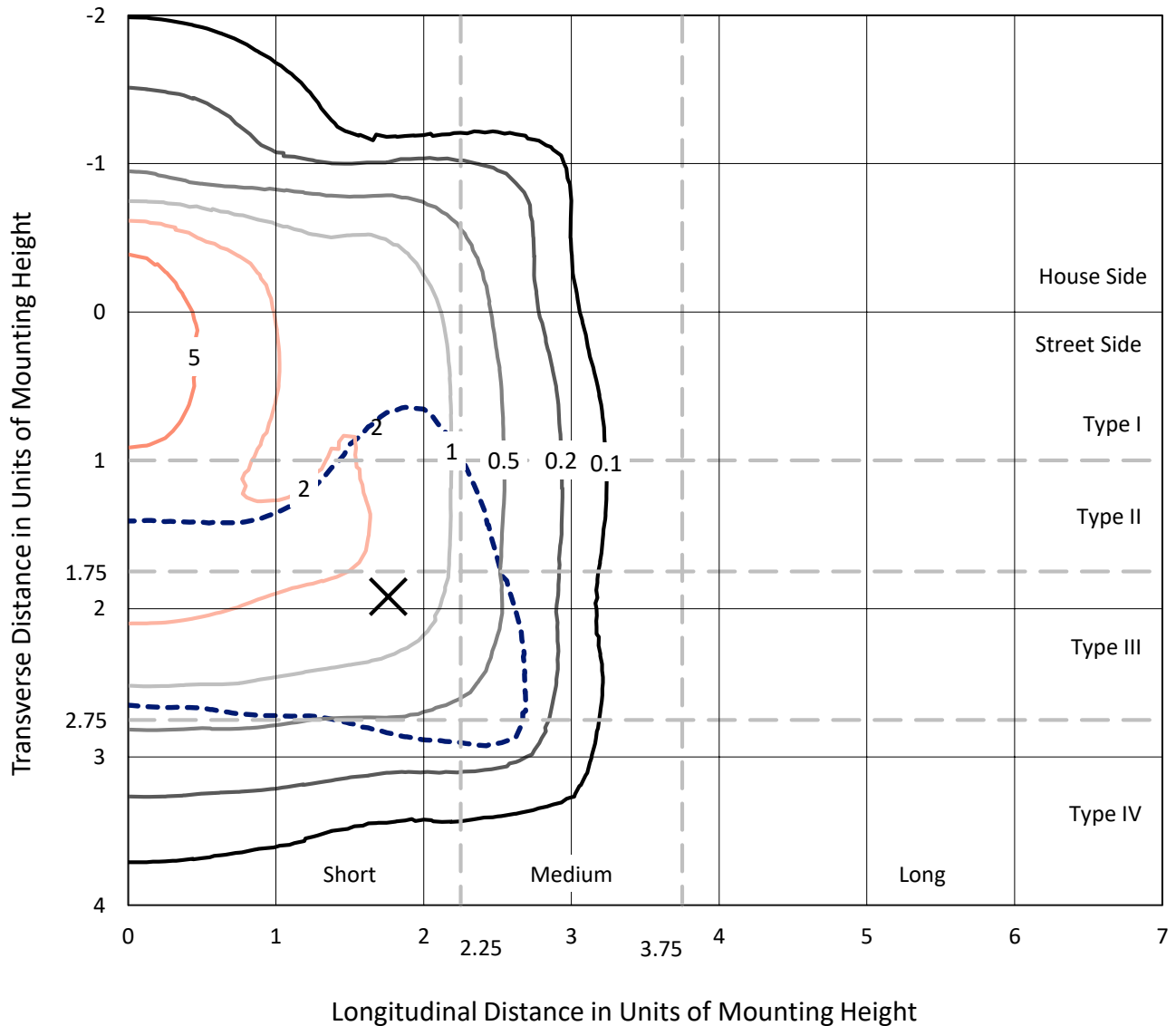
Input Watts (W): 258.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

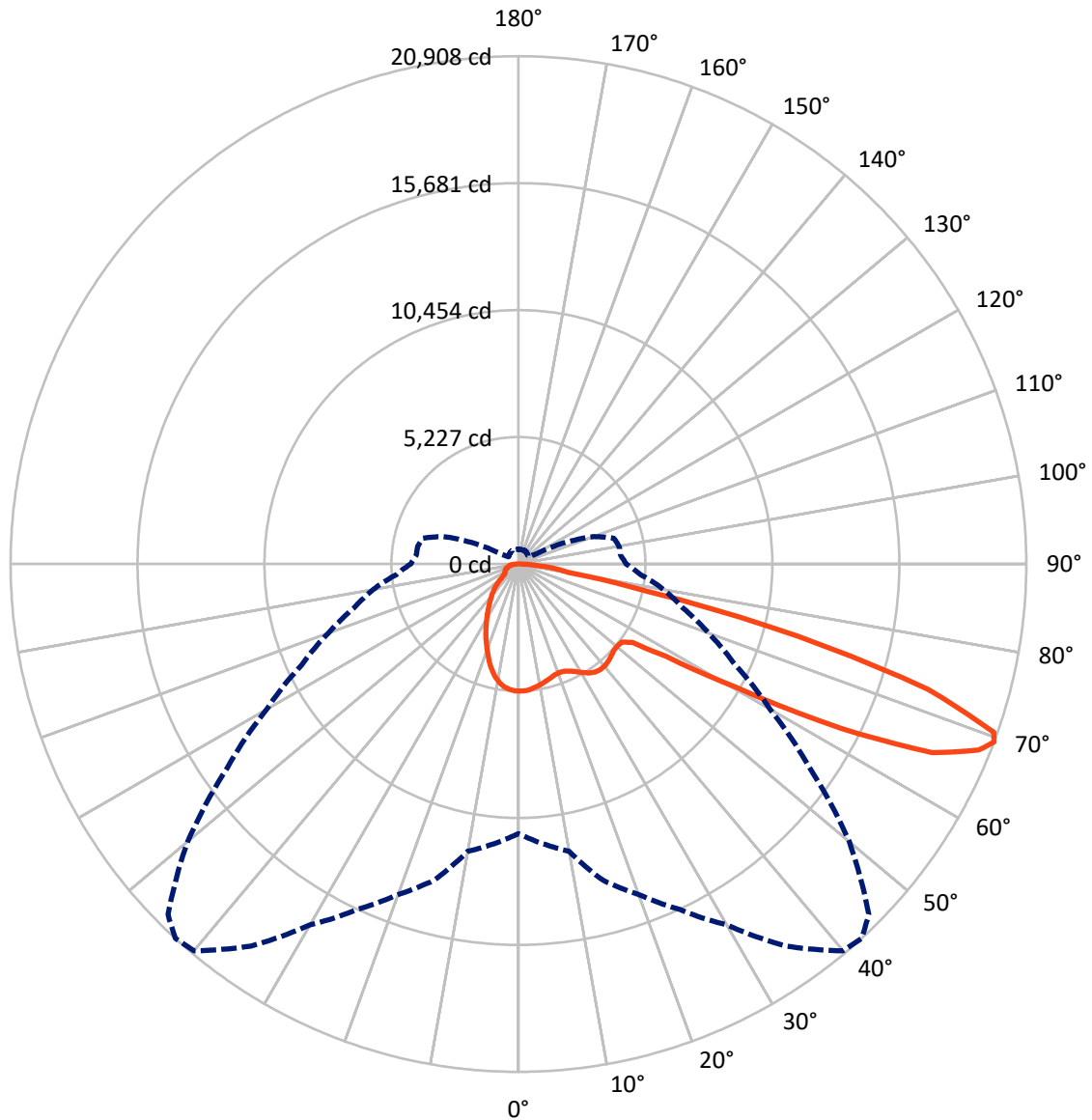
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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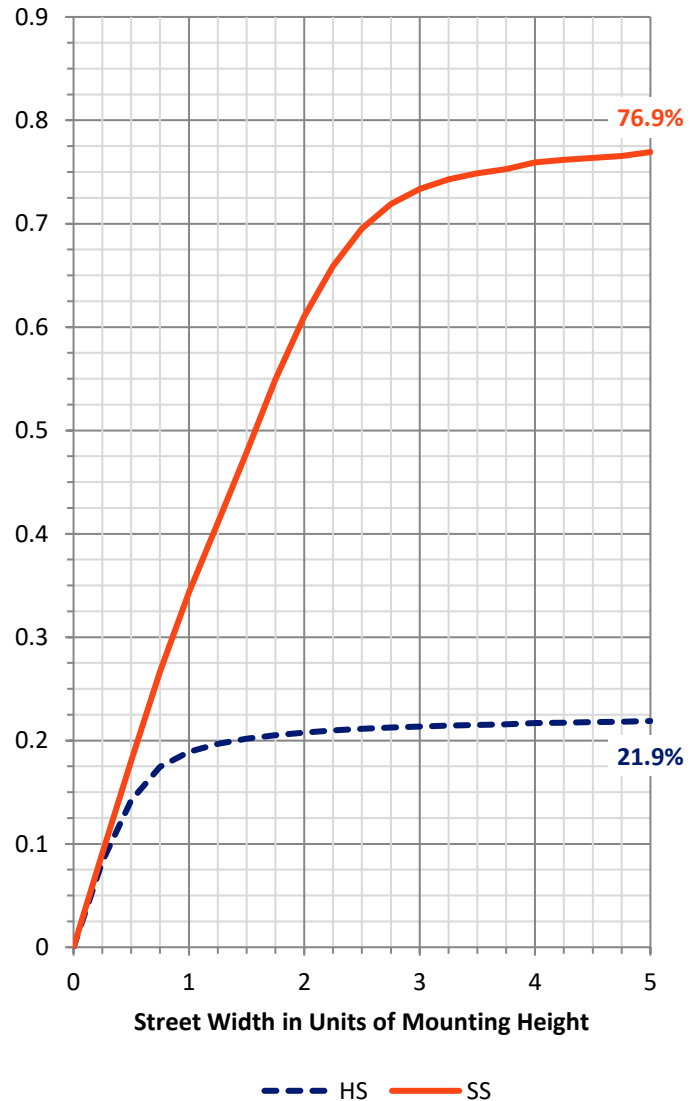
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5463.0	0.0	5463.0
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	19110.1	0.0	19110.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	24573.1	0.0	24573.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	487.1	2.0
10°-20°	1312.9	5.3
20°-30°	1914.5	7.8
30°-40°	2440.6	9.9
40°-50°	2839.8	11.6
50°-60°	4320.7	17.6
60°-70°	7632.3	31.1
70°-80°	3149.5	12.8
80°-90°	475.6	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	24573.1	100.0
0°-180°	24573.1	100.0



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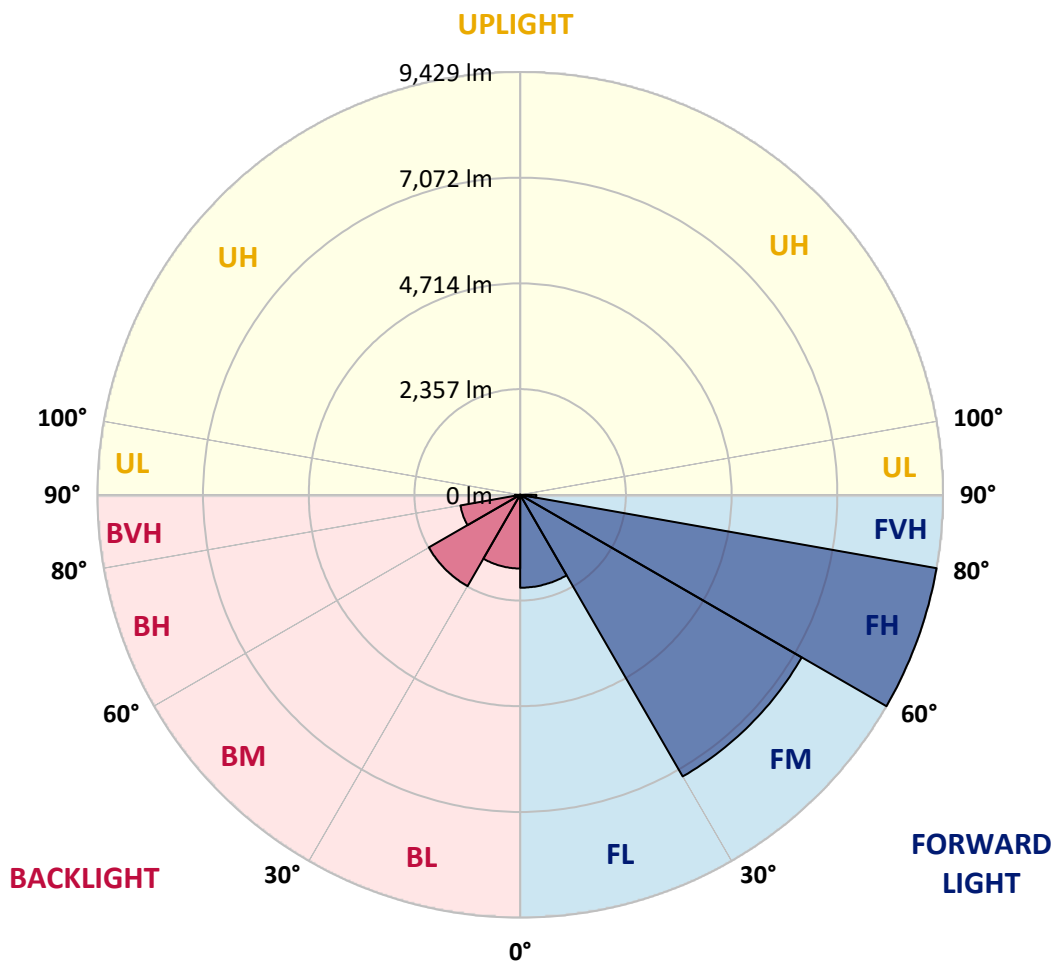
CATALOG NUMBER: VST-F10-LED-E-U-SL4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2072.1	8.4			
FM	(30°-60°)	7249.7	29.5			
FH	(60°-80°)	9428.7	38.4			G4/12000
FVH	(80°-90°)	359.6	1.5			G3/500
BL	(0°-30°)	1642.5	6.7	B3/2500		
BM	(30°-60°)	2351.4	9.6	B2/2500		
BH	(60°-80°)	1353.2	5.5	B3/2500		G3/2500
BVH	(80°-90°)	115.9	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2
2.5°	5216.3	5234.9	5228.2	5228.2	5233.2	5224.8	5224.8	5228.2	5219.7	5224.8	5223.1
5°	5197.7	5207.8	5204.4	5204.4	5204.4	5197.7	5194.3	5192.6	5180.7	5180.7	5175.6
7.5°	5157.0	5160.4	5165.5	5158.7	5157.0	5155.3	5143.4	5136.7	5123.1	5111.3	5114.6
10°	5102.8	5101.1	5109.6	5104.5	5097.7	5092.6	5082.5	5070.6	5055.3	5040.1	5038.4
12.5°	5041.8	5040.1	5046.9	5043.5	5038.4	5028.2	5019.8	4999.4	4975.7	4957.1	4955.4
15°	5002.8	4997.7	5004.5	4997.7	4989.3	4979.1	4963.9	4938.5	4896.1	4877.5	4862.2
17.5°	5040.1	5031.6	5035.0	5026.5	5014.7	4987.6	4952.0	4897.8	4836.8	4804.6	4780.9
20°	5170.5	5155.3	5158.7	5150.2	5123.1	5087.5	5019.8	4924.9	4821.6	4769.0	4731.8
22.5°	5356.9	5345.0	5350.1	5341.7	5314.6	5260.3	5158.7	5023.2	4875.8	4799.5	4740.2
25°	5639.8	5650.0	5653.4	5614.4	5599.2	5499.2	5358.6	5170.5	4974.0	4884.2	4802.9
27.5°	5958.3	5958.3	5973.6	5958.3	5927.8	5810.9	5612.7	5385.7	5133.3	5011.3	4913.0
30°	6268.4	6265.0	6293.8	6290.4	6241.3	6109.1	5883.8	5607.6	5319.6	5182.4	5057.0
32.5°	6597.0	6607.2	6625.8	6619.0	6554.7	6371.7	6100.6	5800.8	5497.5	5346.7	5206.1
35°	6952.8	6957.9	6964.7	6961.3	6830.8	6600.4	6259.9	5924.4	5609.3	5460.2	5314.6
37.5°	7308.6	7303.5	7295.0	7222.2	7073.1	6752.9	6356.5	5995.6	5665.2	5504.3	5353.5
40°	7627.1	7598.3	7571.2	7457.7	7228.9	6839.3	6393.7	6012.5	5660.2	5494.1	5346.7
42.5°	7801.6	7769.4	7713.5	7571.2	7293.3	6847.8	6368.3	5961.7	5607.6	5443.3	5297.6
45°	7833.8	7810.0	7755.8	7596.6	7278.1	6793.5	6290.4	5878.7	5529.7	5365.4	5228.2
47.5°	7757.5	7738.9	7686.4	7528.8	7212.0	6712.2	6200.6	5790.6	5453.5	5299.3	5167.2
50°	7640.6	7623.7	7583.0	7439.0	7137.5	6656.3	6154.9	5744.9	5428.1	5287.4	5165.5
52.5°	7830.4	7843.9	7725.3	7567.8	7217.1	6705.5	6205.7	5792.3	5473.8	5334.9	5207.8
55°	10779.9	10761.2	10048.0	9450.0	8381.0	7411.9	6688.5	6168.4	5827.9	5689.0	5570.4
57.5°	14007.2	13942.9	13649.8	13090.7	11942.1	10408.9	9014.6	7828.7	7361.1	7161.2	7174.7
60°	15061.0	15084.7	15022.0	14823.8	14412.1	13614.2	12553.7	11662.5	10785.0	10356.3	10405.5
62.5°	15645.5	15687.8	15742.1	15698.0	15564.2	15379.5	15245.7	15327.0	15205.0	14896.7	14651.0
65°	15726.8	15813.2	15992.8	16135.1	16204.6	16379.1	16789.0	17771.6	18669.5	18728.8	18296.8
67.5°	14117.4	14356.2	14745.9	15404.9	15969.1	16589.1	17578.5	19072.8	20397.6	20441.6	20038.4
69°	11100.1	11559.2	12014.9	13487.1	14478.2	15692.9	17156.7	19198.1	20785.5	20907.5	20399.3
70°	8894.3	9167.1	9560.1	11039.1	12519.8	14068.2	16189.3	18784.7	20519.6	20765.2	20204.4
72.5°	5340.0	5445.0	5580.5	6110.8	6873.2	8252.2	11064.5	15315.1	17309.1	17637.8	16924.6
75°	3452.7	3445.9	3457.8	3605.2	3649.2	3913.5	4799.5	7879.5	11291.5	11887.9	11034.0
77.5°	2600.5	2624.2	2587.0	2600.5	2588.7	2659.8	2686.9	2820.8	4457.3	5490.7	4909.7
80°	2295.6	2307.4	2309.1	2302.4	2219.3	2212.6	2256.6	2180.4	2026.2	2056.7	1970.3
82.5°	1309.6	1307.9	1323.1	1438.3	1485.8	1641.6	1706.0	1741.6	1607.7	1507.8	1363.8
85°	848.8	855.5	872.5	908.1	872.5	886.0	870.8	901.3	826.7	767.5	686.1
87.5°	347.3	347.3	369.3	401.5	374.4	367.6	315.1	311.7	264.3	238.9	186.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2
2.5°	5212.9	5223.1	5218.0	5224.8	5219.7	5219.7	5212.9	5211.2	5216.3	5209.5	5211.2
5°	5167.2	5168.9	5160.4	5163.8	5153.6	5150.2	5145.1	5131.6	5140.1	5131.6	5135.0
7.5°	5101.1	5096.0	5084.1	5067.2	5055.3	5050.3	5040.1	5021.5	5024.9	5009.6	5018.1
10°	5016.4	4999.4	4979.1	4953.7	4936.8	4921.5	4899.5	4877.5	4865.6	4852.0	4850.4
12.5°	4921.5	4901.2	4874.1	4835.1	4797.8	4772.4	4738.5	4699.6	4687.7	4665.7	4653.8
15°	4818.2	4786.0	4753.8	4709.7	4669.1	4630.1	4584.4	4535.2	4503.1	4469.2	4443.8
17.5°	4725.0	4687.7	4645.4	4603.0	4559.0	4511.5	4453.9	4392.9	4345.5	4282.8	4232.0
20°	4652.1	4604.7	4562.3	4518.3	4469.2	4411.6	4342.1	4264.2	4184.6	4115.1	4055.8
22.5°	4623.3	4548.8	4498.0	4453.9	4404.8	4337.0	4252.3	4160.8	4064.3	3967.7	3889.8
25°	4647.1	4536.9	4457.3	4404.8	4362.4	4293.0	4198.1	4086.3	3974.5	3859.3	3754.2
27.5°	4716.5	4575.9	4460.7	4377.7	4328.6	4259.1	4159.1	4040.6	3908.4	3779.7	3650.9
30°	4824.9	4642.0	4496.3	4379.4	4303.1	4223.5	4118.5	3981.3	3847.4	3700.0	3559.4
32.5°	4930.0	4711.4	4536.9	4386.2	4269.3	4165.9	4049.0	3913.5	3769.5	3615.3	3469.6
35°	5004.5	4757.2	4552.2	4370.9	4216.7	4088.0	3962.6	3827.1	3686.5	3528.9	3379.8
37.5°	5040.1	4782.6	4553.9	4330.3	4147.3	4005.0	3871.1	3737.3	3605.2	3456.1	3315.5
40°	5038.4	4780.9	4530.2	4277.7	4064.3	3913.5	3781.3	3650.9	3527.2	3396.8	3269.7
42.5°	5001.1	4753.8	4496.3	4226.9	4005.0	3837.3	3700.0	3574.7	3469.6	3354.4	3247.7
45°	4943.5	4708.0	4460.7	4203.2	3988.0	3820.3	3674.6	3552.6	3459.5	3354.4	3262.9
47.5°	4899.5	4682.6	4465.8	4245.5	4040.6	3866.1	3711.9	3578.0	3498.4	3413.7	3349.3
50°	4906.3	4694.5	4482.7	4271.0	4077.8	3901.6	3752.5	3630.6	3573.0	3550.9	3535.7
52.5°	4941.8	4713.1	4533.5	4406.5	4340.4	4208.3	4120.2	4043.9	4086.3	4003.3	3905.0
55°	5395.9	5321.3	5495.8	5660.2	5868.5	5946.5	5871.9	5858.4	5926.1	5644.9	4999.4
57.5°	7271.3	7464.4	7733.8	7876.1	8048.9	8003.2	7830.4	7686.4	7516.9	7188.3	6383.6
60°	10461.4	10315.7	10193.7	9849.8	9568.6	9239.9	8874.0	8560.5	8260.7	7788.0	6917.2
62.5°	13748.0	12736.6	11891.2	11074.7	10417.3	9871.8	9341.5	8870.6	8416.5	7757.5	6820.7
65°	16590.8	14461.3	12873.9	11676.1	10715.5	9887.1	9206.0	8555.5	7977.8	7205.2	6278.5
67.5°	17868.2	15199.9	12890.8	11174.6	9844.7	8719.8	7838.8	6856.2	6209.1	5714.4	5192.6
69°	17773.3	14635.8	11970.9	9858.3	8330.1	7018.9	6073.5	5048.6	4428.5	4218.4	4206.6
70°	17322.7	13680.3	10896.8	8789.3	7040.9	5738.1	4831.7	3911.8	3334.1	3190.1	3445.9
72.5°	14142.8	9666.8	6829.1	5214.6	4010.1	3169.8	2585.3	2051.6	1638.2	1419.7	1467.1
75°	7987.9	4475.9	2893.6	2187.1	1848.3	1528.1	1311.3	1118.1	1011.4	821.7	650.6
77.5°	2903.8	1921.2	1528.1	1321.4	936.9	645.5	540.4	472.7	428.6	428.6	408.3
80°	1836.5	1446.8	1009.7	691.2	511.6	445.6	389.7	342.2	315.1	308.3	315.1
82.5°	1146.9	886.0	565.8	433.7	364.2	327.0	284.6	249.0	227.0	221.9	232.1
85°	565.8	438.8	343.9	306.6	288.0	267.7	235.5	201.6	194.8	208.4	244.0
87.5°	169.4	150.8	123.7	128.8	135.5	132.1	105.0	91.5	86.4	113.5	177.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2	5233.2
2.5°	5214.6	5212.9	5216.3	5211.2	5214.6	5216.3	5212.9	5228.2	5218.0	5219.7	5226.5
5°	5138.4	5135.0	5148.5	5145.1	5151.9	5158.7	5155.3	5177.3	5168.9	5175.6	5189.2
7.5°	5011.3	5018.1	5019.8	5019.8	5033.3	5055.3	5060.4	5074.0	5074.0	5092.6	5106.2
10°	4841.9	4843.6	4853.7	4852.0	4869.0	4892.7	4896.1	4919.8	4928.3	4958.8	4977.4
12.5°	4645.4	4636.9	4635.2	4633.5	4655.5	4680.9	4684.3	4725.0	4741.9	4769.0	4799.5
15°	4425.1	4403.1	4396.3	4409.9	4404.8	4420.0	4435.3	4457.3	4481.0	4535.2	4562.3
17.5°	4210.0	4165.9	4154.1	4138.8	4123.6	4123.6	4130.3	4157.4	4206.6	4235.4	4296.4
20°	3989.7	3937.2	3894.9	3854.2	3818.6	3805.1	3806.8	3840.6	3876.2	3923.7	3981.3
22.5°	3805.1	3725.4	3652.6	3598.4	3525.5	3523.8	3513.7	3523.8	3562.8	3574.7	3606.8
25°	3645.8	3539.1	3440.8	3352.7	3281.6	3244.3	3234.1	3230.7	3212.1	3207.0	3183.3
27.5°	3522.1	3393.4	3266.3	3159.6	3071.5	3020.7	2956.3	2910.6	2844.5	2827.5	2785.2
30°	3420.5	3281.6	3142.7	3003.7	2903.8	2812.3	2703.9	2624.2	2522.6	2456.5	2398.9
32.5°	3322.2	3181.6	3041.0	2903.8	2749.6	2607.3	2465.0	2341.3	2227.8	2126.2	2041.5
35°	3240.9	3107.1	2964.8	2798.7	2602.2	2397.2	2226.1	2085.5	1929.6	1822.9	1716.2
37.5°	3188.4	3066.4	2924.1	2695.4	2443.0	2222.7	2027.9	1856.8	1697.5	1536.6	1416.3
40°	3164.7	3057.9	2880.1	2600.5	2304.0	2060.1	1844.9	1655.2	1451.9	1270.6	1141.9
42.5°	3163.0	3054.6	2819.1	2495.5	2188.8	1922.9	1684.0	1457.0	1231.6	1045.3	918.2
45°	3193.5	3049.5	2754.7	2407.4	2087.2	1809.4	1524.7	1248.6	996.2	857.2	789.5
47.5°	3274.8	3057.9	2702.2	2326.1	1990.6	1672.1	1341.8	1019.9	811.5	747.1	747.1
50°	3420.5	3107.1	2688.6	2268.5	1894.1	1512.9	1118.1	823.4	718.3	718.3	738.6
52.5°	3644.1	3210.4	2712.3	2227.8	1773.8	1302.8	881.0	709.8	689.5	708.2	735.3
55°	4159.1	3393.4	2744.5	2158.3	1590.8	1033.4	726.8	670.9	679.4	701.4	726.8
57.5°	5104.5	3784.7	2778.4	2005.9	1296.0	796.3	659.0	655.6	670.9	691.2	713.2
60°	5726.2	4282.8	2864.8	1775.5	980.9	657.3	625.1	645.5	664.1	681.0	698.0
62.5°	5726.2	4423.4	2929.2	1518.0	737.0	598.0	603.1	635.3	657.3	665.8	676.0
65°	5360.3	4165.9	2710.6	1236.7	599.7	564.2	582.8	615.0	635.3	642.1	650.6
67.5°	4684.3	3679.7	2283.7	931.8	535.4	535.4	559.1	582.8	599.7	613.3	626.8
69°	4072.7	3301.9	2011.0	789.5	509.9	513.3	537.0	557.4	577.7	594.6	611.6
70°	3632.3	3019.0	1821.2	716.6	494.7	496.4	520.1	542.1	560.8	579.4	599.7
72.5°	1944.9	2085.5	1384.1	587.9	455.7	460.8	482.8	503.2	520.1	538.7	557.4
75°	662.4	896.2	881.0	481.1	411.7	425.2	438.8	457.4	479.4	491.3	501.5
77.5°	388.0	401.5	469.3	391.3	371.0	377.8	393.0	408.3	426.9	438.8	447.3
80°	325.3	323.6	325.3	318.5	323.6	338.8	349.0	369.3	386.3	389.7	388.0
82.5°	264.3	277.8	279.5	276.1	291.4	303.3	311.7	323.6	321.9	325.3	332.1
85°	235.5	233.8	245.7	247.3	247.3	238.9	240.6	240.6	240.6	245.7	247.3
87.5°	235.5	196.5	152.5	137.2	144.0	135.5	128.8	127.1	140.6	154.2	150.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	5233.2	5233.2	5233.2	5233.2	5233.2
2.5°	5229.8	5234.9	5231.5	5231.5	5234.9
5°	5194.3	5202.7	5199.4	5202.7	5202.7
7.5°	5112.9	5124.8	5133.3	5141.7	5136.7
10°	4996.1	5016.4	5029.9	5040.1	5035.0
12.5°	4821.6	4840.2	4869.0	4885.9	4872.4
15°	4582.7	4635.2	4652.1	4675.9	4662.3
17.5°	4333.6	4365.8	4386.2	4408.2	4421.7
20°	4001.6	4027.0	4054.1	4064.3	4049.0
22.5°	3601.8	3615.3	3610.2	3625.5	3595.0
25°	3163.0	3171.5	3166.4	3179.9	3154.5
27.5°	2747.9	2746.2	2747.9	2731.0	2714.0
30°	2348.1	2332.8	2326.1	2300.7	2295.6
32.5°	1990.6	1938.1	1911.0	1873.7	1865.3
35°	1633.2	1558.6	1509.5	1467.1	1448.5
37.5°	1313.0	1223.2	1165.6	1128.3	1123.2
40°	1038.5	955.5	914.8	894.5	891.1
42.5°	847.1	811.5	801.3	801.3	801.3
45°	772.5	770.8	779.3	786.1	787.8
47.5°	757.3	767.5	779.3	789.5	792.9
50°	757.3	767.5	775.9	786.1	789.5
52.5°	753.9	762.4	765.8	772.5	775.9
55°	743.7	748.8	748.8	752.2	755.6
57.5°	726.8	730.2	725.1	728.5	737.0
60°	709.8	713.2	704.8	713.2	718.3
62.5°	691.2	692.9	689.5	696.3	696.3
65°	660.7	657.3	662.4	667.5	669.2
67.5°	630.2	621.8	626.8	628.5	631.9
69°	606.5	601.4	603.1	606.5	609.9
70°	589.6	586.2	589.6	594.6	599.7
72.5°	547.2	548.9	560.8	570.9	581.1
75°	508.2	520.1	535.4	557.4	569.2
77.5°	460.8	469.3	481.1	504.9	526.9
80°	398.1	403.2	404.9	413.4	411.7
82.5°	323.6	318.5	315.1	311.7	310.0
85°	232.1	230.4	216.9	206.7	206.7
87.5°	138.9	132.1	125.4	116.9	111.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)